

Application No. 10/820,648  
Filing Date. 04/08/2004  
Attorney Docket No : INTEL29

### **REMARKS**

The undersigned attorney thanks Examiner Glenn for her careful review of this patent application. Prior to entry of this amendment, claims 1 - 28 were pending in the application. Claims 1-4, 7-10, 12, 14-16, 19-24 and 26-28 have been amended. Upon entry of this amendment, claims 1 through 28 will be pending.

### **Examiner Interview**

Applicants respectfully thank Examiner Glenn for her participation in the telephone interview of October 19, 2005. During the interview, Examiner Glenn and the undersigned attorney discussed the pending claims and the use of the term pie-type, which Examiner Glenn found ambiguous. Examiner Glenn and the undersigned attorney agreed that the term pie-shaped be substituted for the term pie-type for clarity.

### **Allowable Subject Matter**

The Applicants wish to thank Examiner Glenn for the allowance of the subject matter of claims 5, 6, 17, and 18.

### **Claims 1-4, 6-16, and 18-28 Are Allowable Over the Cited Reference**

In the Office Action claims 1-4, 7-12, 14-16, and 19-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,885,557 to Barczys (hereinafter "*Barczys*") in view of U.S. Patent No. 4,947,143 to Abouzahra et al. (hereinafter "*Abouzahra*"). The rejection is respectfully traversed.

The Applicants respectfully submit that one of ordinary skill in the art would not have found it obvious to replace the multicoupler of *Barczys* with the divider/combiner as taught by *Abouzahra*, and further that if such a replacement were made, it would not yield the present invention as claimed.

*Barczys* is directed toward a broadband, constant voltage multicoupler and is composed of discrete components. The Examiner identified several distinctions between *Barczys* and the claimed invention, including: *Barczys* does not provide outputs having equal phase and equal

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magnitude and it does not provide a pie shaped impedance matching body section having a wedge shaped geometry.

In addition to these distinctions, Applicants respectfully submit that *Barczys* does not include a first matching section, connected to an input signal, and having a first output and a second output. Rather, Fig. 4 of *Barczys* includes a first multicoupler 110 connected to an input signal. The multicoupler 110 is not the same as the first matching section claimed. Rather, the first multicoupler 110 requires separate matching resistors 194, 196, and 198 to perform matching. Therefore, multicoupler 110 is not a matching section. Further, to the extent that matching resistors 194, 196, and 198 could be considered a "matching section", they do not include an input and two outputs. Therefore, *Barczys* does not include a first matching section as claimed in independent claims 1, 14, and 23.

The Applicants further submit that *Barczys* does not teach that termination resistor 204 is connected to the first output 118 of the multicoupler 110 in Fig. 4. Rather, resistor 204 is attached to the input of buffer amplifier 160, which in turn is connected to the output 118 of the multicoupler 110. Therefore, *Barczys* is missing several additional elements of the claims. Additionally, as will be shown below, any combination with *Abouzahra* does not fill in these gaps.

*Abouzahra* is directed toward a multiport power divider-combiner using a planar structure. *Abouzahra* identifies that its motivation is the need for replacing the lossy corporate feed structures used in feeding a linear array of antenna elements (see col. 2 ll. 60-63). Additionally, *Abouzahra* indicates that another promising feature offered is the flexibility in obtaining unequal output power levels at various ports (see col. 3, ll. 6-9). Neither of these benefits of *Abouzahra* are relevant to the present invention. Accordingly, one of ordinary skill in the art would not find any motivation to combine *Abouzahra* and *Barczys* to produce the present invention.

Notably missing in both *Barczys* and *Abouzahra* is any motivation to import any teaching from one into the other. Further, to the extent one would find motivation to combine *Barczys* and *Abouzahra*, the result would not yield the claimed invention. The Examiner asserts that it would have been obvious to one of ordinary skill in the art to replace the multicoupler of *Barczys* with the divider/combiner taught by *Abouzahra*. However, any motivation to replace the multicouplers for *Barczys* with the divider/combiner of *Abouzahra* would lead to both

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multicouplers being replaced with divider/combiners. Further, it would be undesirable to mix the discrete structure of *Barczys* with the planar structure of *Abouzahra*, so one of ordinary skill in the art who was motivated to replace one multicoupler with a divider/combiner would replace both in order to achieve a uniform structure. The result of such a replacement would be a cascaded structure similar to that shown in Fig. 2 of *Abouzahra*. Notably, since termination resistor 204 is part of the multicoupler 110, which is replaced by the divider/combiner, resistor 204 would no longer be present after the substitution. Accordingly, at least this element of the claimed invention is not present in the combination of *Barczys* and *Abouzahra*.

Additionally, the combination of *Barczys* with *Abouzahra* still fails to teach a first matching section, connected to an input signal, and having a first output and a second output. Therefore, independent claims 1, 14, and 23 are not taught by the combination of *Barczys* and *Abouzahra*. Accordingly, Applicants respectfully request that the rejection of these claims be withdrawn.

Further, since each of the remaining claims depend from claims 1, 14, and 23, and thus include the above discussed elements, which are not present in *Barczys*, *Abouzahra*, or the combination thereof, the Applicant respectfully submits that each of Claims 1 - 28 are in condition for allowance for the reasons stated above and for the further limitations contained therein.

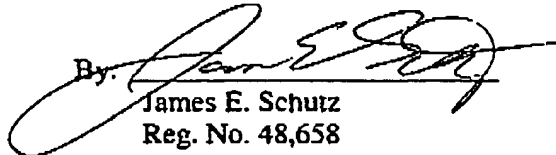
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**CONCLUSION**

It is respectfully submitted that claims 1 - 28 are in condition for allowance and that each point raised in the Official Action with regard to these claims has been fully addressed. Therefore, it is respectfully requested that the rejections to claims 1 - 28 be withdrawn and that claims 1 - 28 be processed to issuance in accordance with Patent Office Business.

If the Examiner believes that there are any issues that can be resolved by a telephone conference, or that there are any informalities that can be corrected by an Examiner's amendment, please contact Jim Schutz at 404.885.3498.

Respectfully submitted,

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